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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,719	05/04/2000	TADASHI YAMAURA	2565-198P	3186

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EXAMINER

AZAD, ABUL K

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 08/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/530,719

**Applicant(s)**

YAMAURA, TADASHI

**Examiner**

ABUL K. AZAD

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4,8b.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. Figure 6 and Figure 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.

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- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

2. The disclosure is objected to because of the following informalities: each of the later item is not upper cased of the section heading as required according to 37 CFR 1.77(b).

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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4. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by the applicant's admitted prior art.

As per claim 1, applicant's admitted prior art teaches, "a speech coding method according to a code-excited linear prediction (CELP) speech coding method," comprising:

"evaluating a noise level of a speech in concerning coding period by using a code or coding result of at least one of spectrum information, power information, and pitch information" (Page 5, lines 8-25, and Figure 7, adaptive codebook as a non-noise codebook and element 119 or 120 as noise codebook; the gain of the noise codebook represents the noise level, it is inherent to measure noise level based on one of spectrum information, power information and pitch information);

"selecting one of a plurality of excitation codebooks based on an evaluation result" (Page 4, lines 9-17, first and second excitation codebook).

As per claim 2, applicant's admitted prior art teaches, "the plurality of excitation codebook storing time series vectors with various noise level and switching the plurality of excitation codebooks based on the evaluation result of the noise level of the speech" (Pages 4 and 5 as above).

As per claim 3, applicant's admitted prior art teaches, "changing a noise level of time series vectors output from the excitation codebooks based on the evaluation result of the noise level of the speech" (Pages 4 and 5 as above).

As per claim 4, applicant's admitted prior art teaches, "an excitation codebook storing noise time series vector" (Pages 4 and 5, as above).

As per claim 5, applicant's admitted prior art teaches, "a first excitation codebook storing a noise time series vector and a second codebook storing a non-noise time series vector and generating a time series vector by adding the time series vector in the first excitation codebook and the time series vector in the second excitation codebook by weighting based on the evaluation result of the noise level of the speech" (Page 5, lines 18-25 and from Figure 7, the plurality of excitation codebooks is switched based on the state of the input speech for producing speech by adding non-noise time series vector and noise time series vector).

As per claims 6-18, are similar scope and content of claims 1-5 and are rejected under similar rationale.

5. Claims 1-4, 6-9 and 13-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishiguchi et al. (US 6,018,707).

As per claim 1, Nishiguchi teaches, "a speech coding method according to a code-excited linear prediction (CELP) speech coding method," comprising:

"evaluating a noise level of a speech in concerning coding period by using a code or coding result of at least one of spectrum information, power information, and pitch information" (col. 11, lines 24-42; reads on "such noise takes into account the parameters concerned with speech encoding data, such as pitch, amplitudes of the spectral envelop, maximum amplitude in a frame of the residual signal level, in connection with the LPC synthesis filter input of voiced speech portion, that is excitation");

“selecting one of a plurality of excitation codebooks based on an evaluation result” (Fig. 4, element 221, and col. 2, lines 3-20, where a noise code book can be a plurality of noise codebooks).

As per claim 2, Nishiguchi teaches, “the plurality of excitation codebook storing time series vectors with various noise level and switching the plurality of excitation codebooks based on the evaluation result of the noise level of the speech” (Fig. 4, element 221, and col. 2, lines 3-20, where a noise code book can be a plurality of noise codebooks).

As per claim 3, Nishiguchi teaches, “changing a noise level of time series vectors output from the excitation codebooks based on the evaluation result of the noise level of the speech” (such noise is takes into account the parameters concerned with speech encoding data, such as pitch, amplitudes of the spectral envelop, maximum amplitude in a frame of the residual signal level, in connection with the LPC synthesis filter input of voiced speech portion, that is excitation”).

As per claim 4, Nishiguchi teaches, “an excitation codebook storing noise time series vector” (col. 44, lines 20-58; CELP as excitation codebook and code vector of the stochastic codebook as noise time series vector).

As per claims 6-9 and 13-18, are similar in scope and content of claims 1-4 and are rejected under similar rationale.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiguchi et al. (US 6,018,707) as applied to claims 1 and 6 above, and further in view of Applicant's admitted prior art.

As per claims 5 and 10-12, Nishiguchi teaches all limitations as rejected above in claims 1-4, but Nishiguchi does not explicitly teach, "a first excitation codebook storing a noise time series vector and a second codebook storing a non-noise time series vector and generating a time series vector by adding the time series vector in the first excitation codebook and the time series vector in the second excitation codebook by weighting based on the evaluation result of the noise level of the speech". However, the applicant admitted that above limitation is well-known at Pages 4 and 5, of specification according to Fig. 7. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use well-known technique so that a high quality speech can be reproduced.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is (703) 305-



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**3838.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Marsha D. Banks-Harold**, can be reached at **(703) 305-4379**.

Any response to this action should be mailed to:

**Commissioner for Patents**

**Washington, D.C. 20231**

Or faxed to:

**(703) 872-9314**

(For informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center's Customer Service Office whose telephone number is **(703) 306-0377**.

Abul K. Azad

August 9, 2002

*Vijay Chawan*  
8/12/02

**VIJAY CHAWAN  
PRIMARY EXAMINER**